

JUL 09 2007

Appl. No. 10/765,808
Amdt. Dated 04/09/2007
Response to Office Action of 04/09/2007

Attorney Docket No.: N1085-00256
[TSMC2003-0899]

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

- 1 1. (Currently Amended) A plasma etching apparatus comprising a chuck for retaining a substrate and hardware that is formed of a material that includes oxygen impregnated therein such that said oxygen is released when an etching operation is carried out, wherein said hardware comprises a focus ring and at least a portion of said focus ring substantially continuously extends below underneath a peripheral portion of said chuck.
- 1 2. (Previously Presented). The plasma etching apparatus as in claim 1, wherein said chuck is substantially circular and said focus ring peripherally surrounds said chuck.
- 1 3. (Previously Presented) The plasma etching apparatus as in claim 8, wherein at least a portion of said lower focus ring substantially continuously extends below a peripheral portion of said chuck.
- 1 4. (Original) The plasma etching apparatus as in claim 1, wherein said chuck comprises an electrostatic chuck.
- 1 5. (Original) The plasma etching apparatus as in claim 1, wherein said hardware comprises a focus ring composed primarily of quartz.
- 1 6. (Original) The plasma etching apparatus as in claim 1, wherein said hardware comprises a focus ring formed of a ceramic.

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1 7. (Previously Presented) The plasma etching apparatus as in claim 1, further
2 comprising a further focus ring, said focus ring and said further focus ring forming a
3 focus ring set that peripherally surrounds said chuck.

1 8. (Currently Amended) A plasma etching apparatus comprising a chuck for
2 retaining a substrate and a focus ring set, at least one of said chuck and said focus ring
3 set formed of a material that includes oxygen therein such that said oxygen is released
4 when an etching operation is carried out, said focus ring set including an upper focus
5 ring that laterally surrounds said chuck and a lower focus ring disposed completely
6 below said upper focus ring and below underneath said substrate.

1 9. (Previously Presented) The plasma etching apparatus as in claim 1, further
2 comprising said focus ring maintainable at a temperature no greater than a temperature
3 of said substrate while an etching operation is carried out upon said substrate.

1 10. (Original) The plasma etching apparatus as in claim 9, wherein said chuck
2 comprises an electrostatic chuck and said substrate comprises a semiconductor
3 substrate.

1 11. (Original) The plasma etching apparatus as in claim 9, wherein said focus ring
2 maintains contact with said electrostatic chuck and said electrostatic chuck is cooled
3 during said etching operation.

1 12. (Original) The plasma etching apparatus as in claim 11, wherein said focus ring
2 is disposed peripherally around said substrate and includes a portion that rests on an
3 annular landing section of electrostatic chuck.

1 13-28. (Cancelled)

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1 29. (Currently Amended) A plasma etching apparatus comprising a chuck for
2 retaining a substrate and a focus ring peripherally surrounding said chuck and formed of
3 a focus ring material that includes oxygen throughout the focus ring material, such that
4 said oxygen is released when an etching operation is carried out, wherein at least a
5 portion of said focus ring substantially continuously extends below underneath a
6 peripheral portion of said chuck.

1 30. (Previously Presented) A plasma etching apparatus comprising a chuck for
2 retaining a substrate and formed of an oxygen-impregnated material, and a focus ring
3 peripherally surrounding said chuck.

1 31. (Previously Presented) The plasma etching apparatus as in claim 30, wherein
2 said chuck comprises an electrostatic chuck.

1 32. (Previously Presented) The plasma etching apparatus as in claim 31, wherein
2 said chuck is disposed within an etching chamber and further comprising said etching
3 chamber containing therein further hardware formed of said oxygen-impregnated
4 material.

1 33. (Currently Amended) A plasma etching apparatus comprising a chuck for
2 retaining a substrate and a focus ring set formed of a focus ring material that includes
3 oxygen throughout the focus ring material such that said oxygen is released when an
4 etching operation is carried out, said focus ring set including an upper focus ring that
5 laterally surrounds said chuck and a lower focus ring disposed completely below said
6 upper focus ring and below underneath a portion of said substrate, at least the
7 lower focus ring maintainable at a temperature no greater than a temperature of said
8 substrate while said etching operation is carried out upon said substrate.